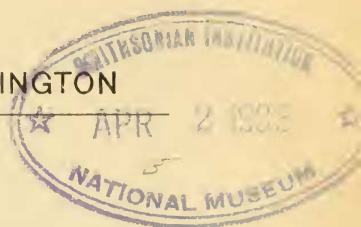


PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON

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A NEW NAME FOR THE ROCKY MOUNTAIN ELK.  
BY VERNON BAILEY.

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The geographic variation and subspecific characters of some of our best known large game mammals are less perfectly understood than in most of the groups of smaller mammals. This is due to the difficulty of getting together enough specimens of the larger species for comparison, to the scarcity of specimens from the early settled parts of the country, and to the crowded condition of our older museums where adequate collections of large mammals would take up more space than is available.

There are no good specimens of buffalo or elk from any part of the eastern United States or Canada in the museums of this country, and the finer distinctions of geographic differences in these groups will never be known unless some long forgotten specimens are found in Old World museums, or in caves, lake beds, marshes, or burial mounds in this country where skulls and skeletons have been more or less imperfectly preserved.

The first known form of the American elk or wapiti was described by Erxleben in 1777 as *Cervus elaphus canadensis*, from eastern Canada (probably the vicinity of Montreal), but there have been no wild native elk in eastern Canada or the extreme eastern United States for more than a century and apparently no specimens have been saved.

Other subspecies from farther west have since been described, the large dark colored *Cervus roosevelti*<sup>1</sup> Merriam from the Olympic Mountains in 1897; a large gray form, *Cervus merriami* Nelson, from Arizona in 1902; a small pale elk from the San Joaquin Valley, California, *Cervus nannodes* Merriam, in 1905; and a medium sized brown elk from northern Manitoba, *Cervus canadensis manitobensis* Millais in 1915.

The large light gray elk of the Rocky Mountains, from Alberta to northern New Mexico, has been called *Cervus canadensis* for want of a better name, but with the full knowledge that the name did not apply subspecifically. With this still abundant species I take pleasure in associating the name of the late E. W. Nelson, who has done so much to advance our knowledge of North American mammals.

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<sup>1</sup>The name *Cervus occidentalis* Ham. Smith, 1827, can not be shown to apply to any North American elk.

**Cervus canadensis nelsoni**, subsp. nov.

*Type* from Yellowstone National Park, ♂ adult (8½ years old) No. <sup>49722</sup><sub>124656</sub>, U. S. Nat. Mus.; died September 21, 1904, in the National Zoological Park (No. 671¼); tanned skin in fresh early fall pelage, not the short summer nor the long coarse winter coat; complete skeleton and skull with antlers sawed off.

*General characters*.—Size large; antlers long with normally 6 points; hoofs four on each foot; upper canine teeth ovoid; tail a mere rudiment; metatarsal glands oval, about 3 inches long, above middle of metatarsus; lachrymal glands deep and sacklike; nose-pad mostly naked and roughened.

*Pelage in summer*, thin, short and harsh with little under wool; mane on top of neck and along throat little developed; in *winter coat*, hair long and coarse over body with dense under coat of fine soft brown wool; neck and throat manes long and coarse; ears silky; face and legs clothed with short stiff hairs; antlers shed annually, generally in March, renewed from permanent pedicels during summer, covered while growing with soft skin and a dense velvety brown coat of short hairs.

*Color*.—In *summer* pelage, body light buffy fawn color, fading to creamy buff or Jersey cow yellow; rump patch creamy buff or whitish; head, neck, legs, and belly dull rusty brown to dark amber and blackish; lips, chin, and leg stripes fulvous; eye rings buffy; center of metatarsal gland white in tawny area; nose pad, lips, eyelids, and hoofs black. In *winter*, body buffy gray over lavender, with dusky tips of coarse hairs that toward spring wear off and leave a creamy or soiled whitish body color; large rump patch, including stubby tail, whitish or later almost clear white; head and neck dull rusty brown with dark brown manes, darkest on lower throat; face and legs dark brown with buffy markings; ears dull light brown lined with pale buff.

*Fawns*.—Body dark rich fawn color or pale tawny, with two lines of whitish spots from ears to rump patch and irregular spots over sides from shoulders to hips; legs dull fulvous; head and neck tawny with dusky on ears, nose, chin, and throat and along line of belly; rump patch cinnamon; inside of ears and metatarsal spot white; hoofs black with yellow tips.

*Cranial characters*.—Skulls of adult bulls from Yellowstone Park are heavy, thick and angular for support of heavy antlers and for great fighting strength. Canine teeth in upper maxillary oval or rounded, half to three-quarters of an inch in diameter, pointed when unworn, triangular but usually flattened and worn off at crown. In the adult female the skull, without antlers, is large but relatively thin and light with canine teeth half the size of those of the males.

*Measurements* of skull of an adult bull (171889) from Yellowstone Park: basal length, 430; nasals, 170; upper molar series, 140; mastoid breadth, 165; zygomatic breadth, 200; exorbital breadth, 210; rostrum at canines, 90; antlers over beam, right 1260, left 1250; spread of beams, 1000; of tips, 920 mm. Skull of adult cow elk from Yellowstone Park (115137): basal length, 410; nasals, 170; upper molar series, 140; mastoid breadth, 150; zygomatic breadth, 180; exorbital breadth, 195; rostral breadth across canines, 80 mm.

*Remarks.*—Except for the dwarf elk of California this seems to be the palest of all the North American elk. Both *merriami* and *manitobensis* are described as darker colored and *roosevelti* is much darker. The eastern elk was described by Erxleben in 1777 as rusty gray in summer and buffy gray in winter; by Pennant in 1784 as reddish brown in color; by DeKay in 1842, as in spring reddish brown, changing in summer to yellowish brown, to buff in autumn, and gray in winter. Audubon and Bachman in 1851 described the elk from Pennsylvania as in winter with head and neck dark brown, body dark gray. Audubon's colored plate of the Pennsylvania elk in a summer landscape shows them in rich tawny colors over most of the body, indicating a much brighter, richer colored animal than any of our western forms.